

Serial No. Not Yet Assigned
Atty. Doc. No. 2002P17431WOUS

Amendments To The Specification:

In the English translation document, please delete the term --Description-- at page 1 line 1, before the title.

In the English translation document, please add the section heading and paragraph at page 1 line 4, after the title, as follows:

--CROSS REFERENCE TO RELATED APPLICATIONS

This application is the US National Stage of International Application No. PCT/EP2003/014255, filed December 15, 2003 and claims the benefit thereof. The International Application claims the benefits of European application No. 03000446.9 EP filed January 10, 2003, all of the applications are incorporated by reference herein in their entirety.--

In the English translation document, please add the section heading at page 1 line 4, after the newly added CROSS REFERENCE TO RELATED APPLICATIONS section, as follows:

--FIELD OF INVENTION--

In the English translation document, please amend the paragraph at page 1 lines 5-8, as follows:

The invention relates to a process for producing single-crystal structures, in particular from superalloys, in accordance with the preamble of the independent claims. Claim 1, and to a component in accordance with the preamble of Claim 9.

In the English translation document, please add the section heading at page 1 line 9, as follows:

--BACKGROUND OF INVENTION--

In the English translation document, please amend the paragraph at page 1 lines 10-31 to replace a comma with a period at the end of the paragraph, as follows:

Metallic workpieces with a single-crystal structure or directionally solidified structures are used as components of machines which, in operation, are subject to high mechanical, thermal and/or chemical loads. By way of example, blades and vanes of gas turbines, in particular including

rotor blades for aircraft engines, but also those used in stationary gas turbines, are produced from single crystals. Single-crystal workpieces of this type are manufactured, for example, by directional solidification from the melt. This involves casting processes in which the liquid metal alloy solidifies directionally or to produce a single-crystal structure, i.e. a single-crystal workpiece. By way of example, there is a special known casting process for the production of workpieces of this type in which the liquid alloy in a ceramic mould acquires a crystal orientation in a directional temperature field, e.g. of a Bridgeman furnace. Dendritic crystals are oriented in the direction of heat flow and form either a columnar crystal grain structure (i.e. grains which run over the entire length of the workpiece and are referred to here, in accordance with the general specialist terminology, as directionally solidified) or a single-crystal structure, i.e. the entire workpiece consists of a single crystal.;

In the English translation document, please add the section heading at page 3 line 11, as follows

--SUMMARY OF INVENTION--

In the English translation document, please amend the paragraph at page 3 lines 15-16, as follows:

The object is achieved by a process as claimed in the claims ~~claim 1~~ by an intermediate layer being applied to the substrate.

In the English translation document, please amend the paragraph at page 5 lines 36-36 through page 6 lines 1-6, as follows:

If the substrate is brought to a preheating temperature in the range ~~ange~~ from 600°C to 1100°C by blind tracking, i.e. without the supply of material, using the laser or induction means, and this temperature is maintained for example while the material is being built up, the stresses in the substrate and in the built-up single crystal, but also between the substrate and the crystalline structure which has been built up epitaxially thereon, are reduced, which contributes to preventing recrystallization and creep in the crystal structure.

Serial No. Not Yet Assigned
Atty. Doc. No. 2002P17431WOUS

In the English translation document, please amend the paragraph at page 6 lines 28-30, as follows:

~~The A~~ further object is achieved by a component as claimed in ~~the claims~~ ~~claim~~ 9, in which an intermediate layer is present on the substrate.

In the English translation document, please add the section heading at page 7 before line 1, as follows:

--BRIEF DESCRIPTION OF THE DRAWINGS--

In the English translation document, please add the section heading at page 7 line 6, as follows:

--DETAILED DESCRIPTION OF INVENTION--